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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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877	7590	12/19/2003	EXAMINER	
IBM CORPORATION, T.J. WATSON RESEARCH CENTER P.O. BOX 218 YORKTOWN HEIGHTS, NY 10598			DICUS, TAMRA	
			ART UNIT	PAPER NUMBER
			1774	
DATE MAILED: 12/19/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/683,342

Applicant(s)

STANFORD-CLARK, ANDREW
JAMES

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 36-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 36-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

The Examiner acknowledges cancellation of claims 21-35.

Claim Objections

1. Claims 4 and 10-12 are objected to because they include a temperature sensitive *material*, while the claims from which they depend on, independent claim 1 (amended), does not include this limitation. It is suggested that Applicant use the same terms throughout the claims.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure does not contain any apparatus. Any negative limitation or exclusionary proviso must have basis in the original disclosure. The original disclosure does not contain any mention of not having a reversible process as recited in amended claim 13. These new limitations do not have basis in the original disclosure.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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3. Claims 49-50 (new) rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claims 49-50 (new) recites the limitation "first apparatus". There is insufficient antecedent basis for this limitation in the claim.

Claim Objections

5. Claim 47 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 47 recites "in combination with the product" which does not make sense because claim 1 from which claim 47 depends already comprises a product.

Drawings

6. The drawings (e.g. Figure 1) are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the background material must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 10, 12, 13, 18, 19, 20, 36, 47 and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,544,925 to Prusik et al.

Prusik teaches an activatable time-temperature indicator system. Teaches within regions 37 (first image/zone/information) and 57 (second image/zone/identifier/information) thermochromic ink or dye indicia 53 includes barcode 55 which activates upon temperature changes indicating a failed or unsafe product, or as in Figure 6, indicates a message 65 that warns the consumer of a dangerous product condition. See col. 8, lines 25-51. The indicator is used for perishable food products. See col. 3, lines 53-65, col. 4, lines 9-68, col. 6, lines 45-68, col. 7, lines 5-20, lines 50-68, and Example XII. Specifically at col. 6, line 50, the information in 37 or 57 may include a 3rd information like, the product's weight and price, along with a bar code (instant claim 20). These citings provide the teachings of Prusik equate to the products as instantly claimed in 1-3, 10, 12, 13, 18, 19, 20, 36, 47 and 48. See Figures 5 and 6. Further to the new limitation of the image providing a condition or information, this is not germane to patentability. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). That the product may be suitable for {being able to} eating is not germane since it has been held that an element

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that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

9. Claims 1-2, 4-15 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,219,625 to Matsunami et al.

Matsunami teaches a thermochromic laminate member and toy using the same (temperature sensitive display medium). The laminate comprises a thin transparent film on a thermochromatic layer, which has two images/zones (patterns of a first colored state and a second colored state) at col. 1, lines 22-53 which may be attached/affixed to a doll. The temperature-sensitive material in the thermochromic layer may comprise liquid crystals at col. 1, lines 60-68. At col. 2, lines 25-30, the temperature ranges changes the thermochromatic material. See also col. 3, lines 1-15, lines 40-65, which describes the light reflected colored background and that the light is absorbed to emphasize the interference light in the background (addressing claim 9). Thermochromatic pigment (inclusive of dye) and epoxy (polymer) ink is used in Example 4 (addressing claims 10-12). To the new limitation of the image providing a condition, this is not germane to patentability. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

10. Regarding claim 13, the process of the image display is of no consequence. This is a process limitation in a product claim. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on

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the article itself and not the method used to produce it (see MPEP 2113). Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531.

Regarding claims 9 and 14, the thermochromatic layer having two images may also be adjacent to each other via a back-coat layer 5 of either the first or second colored pattern/image at col. 3, line 65-col. 4, line 5.

Regarding claim 15, the transparent layer 3 overlays the thermochromic layer 2 at col. 3, lines 44-48.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,544,925 to Prusik et al. in view of USPN 6,329,035 to Iwasaki et al., as applied to claim 1 above.

13. Prusik is relied upon above. Prusik shows background materials 11 bearing 13 in Figures 5 and 6. The background materials while forming parts of the first and second images don't teach a light-absorbing type as instant claim 9 requires. Iwasaki teaches optical data storage mediums. Iwasaki teaches at col. 14, lines 15-20, when the reversible image recording layer changes between the transparent state and the opaque state and when a light absorbing sheet or a light-

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reflecting sheet is placed on the back of the tested sample, the density may be measured in that arrangement. Thermosensitive recording material is used for recording the images (providing motivation for forming 1st and 2nd images) such as bar codes. See col. 7 and 17. It would have been obvious to one of ordinary skill in the art to modify the time-temperature system of Prusik to include a light-absorbing material because Iwasaki provides the effect of measuring density in the label arrangement as cited above.

14. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,544,925 to Prusik et al. in view of USPN 6,161,725 to Dean.

15. Prusik is relied upon above. Prusik does not provide for the liquid crystals of instant claims 4-8. Dean teaches fluent product dispenser with temperature indicating means. At col. 5, lines 20-25, markings may include text to indicate proper temperatures. At col. 5, lines 35-55, temperature indicators are made of liquid crystals that reflect red light and responds to ambient temperature. See Figures 2A to 2C having the words, "too cold" to indicate temperature changes. It would have been obvious to one of ordinary skill in the art to modify the time-temperature indicator of Prusik to include liquid crystals that reflect red light for either first or second image because Dean teaches using such crystals to effect the temperature and information display of a product in response to temperature changes as cited above.

16. Claims 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,544,925 to Prusik et al. in view of USPN 6,161,725 to Dean, as applied to claim 1 above.

17. Prusik is relied upon above. Prusik does not provide for the temperature information of claims 36-39. Dean teaches fluent product dispenser with temperature indicating means. At col. 5, lines 20-25, markings may include text to indicate proper temperatures. At col. 5, lines 35-55,

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temperature indicators are made of liquid crystals that reflect red light and responds to ambient temperature. See Figures 2A to 2C having the words, "too cold" to indicate temperature changes. It would have been obvious to one of ordinary skill in the art to modify the time-temperature indicator of Prusik to include liquid crystals that reflect red light for either first or second image, also providing for any information type because Dean teaches using such crystals to effect the temperature and information display of a product in response to temperature changes as cited above.

18. Claims 14-16 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,544,925 to Prusik et al. in view of USPN 5,660,925 to Cooley et al., as applied to claims 1 and 18 above.

19. Prusik is relied upon above. Regarding instant claims 14-16 to the 1st and 2nd adjacent images, above or below, or next to, with a transparent medium between the 1st and 2nd images as required by the instant claims, Prusik does not teach, although Prusik does teach adding transparent mediums over 1st and 2nd images. Prusik does not teach the various types of information as recited in instant claims 44-46. Cooley teaches a tamper-indicating authenticating label that has a first (18) and second (20) image adjacent to each other and a transparent layer intermediate another image (22), which may also serve as the second image. The images of Cooley may be of any desired pattern, bar codes, alpha-numeric characters, logo, or the like at col. 7, lines 35-40 and 49-54. Hence it would have been obvious to one of ordinary skill in the art to modify the time-temperature system of Prusik to further include any type of identifiers for the purpose of identification as taught by Cooley at col. 7, lines 35-44. Also it would have been obvious to one of ordinary skill in the art to modify the time-temperature system of Prusik to

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include a transparent material intermediate a first, second, and/or third image because Cooley teaches such placement provides a label with security at col. 7, lines 50-55.

20. Claims 3 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,219,625 to Matsunami et al. in view of USPN 5,660,925 to Cooley et al.

Matsunami is relied upon above. Matsunami does not teach the image could be a bar code or identifier nor a transparent material intermediate a first second and/or third image. Cooley teaches a tamper-indicating authenticating label that has a first (18) and second (20) image adjacent to each other and a transparent layer intermediate another image (22), which may also serve as the second image. The images of Cooley may be of any desired pattern, bar codes, alpha-numeric characters, logo, or the like at col. 7, lines 35-40 and 49-54. Hence it would have been obvious to one of ordinary skill in the art to modify the laminate of Matsunami to further include bar codes or identifiers for the purpose of identification as taught by Cooley at col. 7, lines 35-44. Also it would have been obvious to one of ordinary skill in the art to modify the laminate of Matsunami to include a transparent material intermediate a first, second, and/or third image because Cooley teaches such placement provides a label with security at col. 7, lines 50-55. To the new limitation of the image providing a condition, this is not germane to patentability. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Response to Arguments

Applicant's arguments filed 9-26-03 have been fully considered but they are not persuasive.

Applicant argues the use of Matsunami as a 102(b) because Applicant alleges Matsunami does not provide the specific technical advantage to a thermal history and processing of a product. Applicant further argues Matsunami not providing a symbol that is representative of how to process a product. The Applicant has not made a persuasive argument. Matsunami need not provide such processing information because Matsunami provides the same materials and structure of Applicant. Further Applicant does not claim a symbol. Applicant further contends that Matsunami is merely directed to a toy. Matsunami provides a thermochromatic laminate; to what Matsunami wishes to stick the laminate on is of no consequence. At col. 2, lines 25-30, the temperature ranges changes the thermochromatic material.

Applicant argues that Cooley does not teach or suggest a display medium because Cooley is not concerned with how to process a product. This argument is not persuasive because it is simply based on intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 5,352,649 to Shibahashi et al. teaches thermochromic laminates for use in fields of temperature-indicators. The material comprises liquid crystals, reflecting red light of 650-700 nm. USPN 5,654,046 to Ninomiya et al. teaches use of leuco dye and polymer blends for thermosensitive recording material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-8329.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus
Examiner
Art Unit 1774

December 5, 2003

CYNTHIA M. KELLY
SUPERVISOR
ART UNIT 1774
DEC 11 2003

Cynthia H. Kelly